August 29, 2014

Kristine Koch
Remedial Project Manager
United States Environmental Protection Agency
Region 10
1200 S.W. Sixth Avenue, Suite 900
Seattle, WA 98101-3140

Dear Ms. Koch,

On behalf of Bayer CropScience (BCS), Golder Associates, Inc. and AMEC Environment & Infrastructure, Inc. have prepared this letter outlining suggested edits to Section 1.0 of EPA's Draft Feasibility Study as it relates to certain statements made regarding the former Rhone-Poulenc property. BCS is a funding member of the Lower Willamette Group (LWG). The suggested edits address incorrect factual statements and more accurately reflect the record.

BCS accepted all EPA redline/strike-out edits to the referenced text (as submitted to LWG on August 25, 2014) before adding suggested edits and comments.

Section 1.2.3.4 Groundwater – West Side of the Willamette River, RM 6 and RM 7

BCS Comment - BCS recommends the following changes regarding the text describing groundwater that discharges to the Willamette between RM 6 and RM 7:

> Siltronic – A chlorinated VOC plume as well as groundwater plumes associated with historical MGP waste and a ~~pesticide~~herbicide and chlorinated VOC plume~~s~~ from Rhone Poulenc are known to discharge to the river.
>
> Contaminants include petroleum-related and chlorinated VOCs (benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,1-dichloroethene, cis-1,2-DCE, trans-1,2-DCE, TCE, and vinyl chloride), PAHs, gasoline- range, diesel- range, and residual-range hydrocarbons, cyanide, metals (arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, silver, thallium, vanadium, and zinc), Silvex, and dichlorprop. In-situ bioremediation and treatment with zero-valent iron has been implemented to reduce halogenated VOC concentrations discharging to the river. The NW Natural hydraulic control pump and treatment system extends to the northern portion of the Siltronic site is expected to control the TCE plume in addition to the Gasco MGP plume.

Comment [BCS1]: The text as written inaccurately implies that the entire list of compounds that follow are associated with releases from Siltronic and Rhone Poulenc. For example, Rhone Poulenc is not the source of SVOCs, PAHs, or inorganics, among others. Similarly, Siltronic may not be responsible for many of the compounds listed. Therefore, we suggest inserting a paragraph break after this sentence so that it is not incorrectly assumed that the list of compounds that follows are necessarily associated with Rhone Poulenc and/or Siltronic.

Section 1.2.3.4 Groundwater – West Side of the Willamette River, RM 7

BCS Comment - BCS recommends the following changes regarding the text describing potential COIs associated with the former Rhone-Poulenc site:

> Rhone Poulenc – ~~Known releases of o~~Organochlorine insecticides and herbicides, including PCP, 2,4-DP, Bromoxynil, 4(2,4-dichloropenoxy)butyric acid (2,4-DB), 2-methyl-4-chlorophenoxyacetic acid (MCPA), methylchlorophenoxypropionic acid (MCPP), 4-(4-chloro-2-methylphenoxy)butanoic acid (MCPB), 2,4,5-trichlorophenoxyacetic acid [2,4,5-T], 2,4-dichlorophenoxyacetic acid (2,4-D), DDT, Endrin, Heptachlor, sodium chlorate, sodium arsenate, 2,4,5-TP (Silvex), aldrin, dieldrin, chlordanes, and dichlorprop have either been used and/or detected in soil and/or groundwater at the former Rhone Poulenc property.~~occurred at the site~~

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BCS Comment – BCS recommends the following changes regarding text describing groundwater conditions associated with the former Rhone Poulenc site to more accurately reflect actions undertaken by StarLink Logistics, Inc. (Starlink) and the ODEQ's conclusions and recommendations as reflected in the cited references:

~~Spatial and temporal uncertainty present in the groundwater dataset for the site results in uncertainty in defining the full extent of the groundwater plume. In 2013~~[1] DEQ acknowledged ongoing source control efforts at the site, including but not limited to completion of pumping tests to support the evaluation of a potential North Front Avenue Source Control Measure (SCM), removal of accumulated sediment and lining of the Outfall 22B stormwater lines (SCM ongoing), and completion of the West Doane Lake (WDL) IRAM to stabilize and cap West Doane Lake sediments. DEQ concluded that the Rhone Poulenc groundwater pathway should be downgraded from High Priority to Medium Priority based on the "extensive mapping, evaluation of groundwater plumes originating from the site and interim groundwater source control work" and because "Contaminated groundwater plumes from the Rhone Poulenc site discharge to the river, but contaminants are generally not bioaccumulative and are at relatively low concentrations" (DEQ, 2013). DEQ further stated that "Sediment recontamination via groundwater does not need to be addressed in a separate Source Control Alternatives Evaluation…" (DEQ, 2014[2]). Instead, DEQ recommended that source control "be carried forward as a remedial action objective in the Rhone Poulenc feasibility study" (DEQ, 2014). StarLink has undertaken several bench-scale and pilot-scale studies to support evaluation of additional source control measures as part of its on-going feasibility study. ~~determined that there is clear evidence that source control is needed to address direct discharge to the River of the following contaminants in groundwater: VOCs (e.g., dichlorobenzene isomers, and chlorobenzene), and herbicides (e.g., Silvex and dichlorprop). The plume is uncontrolled (ODEQ 2013).~~

Comment [BCS2]: In contrast to other similar sections, this section does not recognize the source control measures and activities already undertaken by SLLI, nor does it recognize SLLI's commitment to implement additional source control measures. In addition to the items listed in BCS's suggested text edits, Starlink has also 1) completed drum and debris removal from the Doane Lake area, 2) completed an on-site Facility Structures Interim Remedial Action Measure (IRAM); and 3) installed and operates groundwater extraction and treatment system (GETS IRAM) to capture alluvial zone groundwater in the Herbicide Area. Source control efforts are ongoing and SLLI is committed to evaluating and implementing additional source controls as part of the feasibility study process.

Comment [BCS3]: If EPA chooses not to strike this sentence, a similar qualifier should be added to the discussion for any other site where this is also true.

Comment [BCS4]: The source cited does not support this statement. BCS has proposed an alternative description of the Rhone Poulenc groundwater pathway

BCS Comment - BCS recommends the following changes to the text describing City Outfall 22B:

The City Outfall 22B groundwater infiltration pathway is currently being addressed by StarLink through implementation of the Outfall 22B Expanded IRAM. Shallow groundwater and associated former Doane Lake sediments in the area of Outfall 22B have been impacted by discharges and runoff from historical operations from surrounding properties. In addition, the Outfall 22B storm sewer system currently or historically received stormwater flow from at least eight properties. The Outfall 22B Expanded IRAM is being implemented to address exceedances of Joint Source Control Screening Level Values for the following in dry weather flow: SVOCs (2,4,6-trichlorophenol, 2,4-dichlorophenol, 2-methylphenol, pentachlorophenol, and naphthalene), Insecticides (aldrin, alpha-chlordane, dieldrin, gamma-chlordane, heptachlor epoxide, hexachlorobenzene, DDD, DDE, and DDT), Dioxin/furans (2,3,7,8-TCDD) and metals (aluminum, boron, molybdenum, thallium, arsenic, barium, iron, manganese) (ODEQ 2013b).

[1] DEQ Letter to Stuart Dearden, SLLI, October 9, 2013, Re: DEQ Review of Rhone Poulenc Source Control Evaluation and Next Step for Source Control, RP-Portland Site, ECSI 155

[2] DEQ Letter to Stuart Dearden, SLLI, March 6, 2014, Re: DEQ Response on December 9, 2013 AMEC Letter Regarding DEQ's Comments on Rhone Poulenc Source Control Evaluation

Section 1.2.3.5 River Banks – West Side of the Willamette River, RM 6 and RM 7

BCS Comment – BCS recommends the following changes to the text describing river bank soils.

RM 6 and RM 7

Siltronic – Contamination associated with historical MGP waste is known to be present in the northern portion of the Siltronic riverbank. Riverbank contaminants include PAHs, gasoline- range hydrocarbons, diesel- range hydrocarbons, residual-range hydrocarbon and cyanide and metals (zinc).

Burlington Northern and Santa Fe Railroad Bridge – Contamination associated with ~~and~~ pesticide and herbicide releases from Rhone Poulenc, ~~and~~ Arkema and other sources are known to be present in the river bank below and adjacent to the Burlington Northern and Santa Fe railroad bridge.

Riverbank contaminants from multiple sources include~~,~~ dioxin/furans, ~~metals (aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury,~~ molybdenum, ~~nickel, potassium, selenium, silver, sodium, thallium, vanadium, zinc, Insecticides (~~DDD, DDE, DDT, total DDx, aldrin, ~~alpha-BHC,~~ alpha-chlordane, gamma-chlordane, total chlordane, ~~beta-BHC,~~ cis-nonachlor, ~~delta-BHC,~~ dieldrin, ~~endosulfan I, endosulfan II, endosulfan sulfate, endrin, endrin aldehyde, endrin ketone, gamma0BHC, gamma-chlordane heptachlor, heptachlor epoxide, hexachlorobutadiene, methoxychlor, mirex, oxychlordane, and~~ trans-nonachlor~~)~~, PCBs, ~~SVOCs (acenaphthylene, anthracene,~~ benzo(a)anthracene, benzo(a)pyrene, ~~benzo(b)fluoranthene, benzo(g,h,i)perylene,~~ benzo(k)fluoranthene, ~~benzoic acid,~~ benzyl alcohol, ~~bis (2-ethylhexyl)phthalate, butylbenzylphthalate,~~ chrysene, ~~bibenzo(a,h)anthracene, dimethylphthalate, bi0n-butylphthalate, fluoranthene,~~ indeno(1,2,3-cd)pyrene, ~~phenanthrene~~ and pyrene~~)~~. (AMEC 2010~~1~~).

RM 7

Arkema –Riverbank contaminants include DDT, dioxin/furans, PCBs, and metals (chromium and lead).

BCS appreciates EPA's time to consider the above edits and clarifications. Should you have any questions regarding this letter, please contact Joan Underwood of Quantum Management Group at (503) 278-1837 or junderwood@qmg-inc.com.

Sincerely,

Golder Associates Inc.

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cc: Scott Manzano – DEQ
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Bob Wyatt – LWG
Jim McKenna – Verdant Solutions
Jennifer Woronets – Anchor QEA
Stuart Dearden – SLLI
Jim Benedict – Cable Huston
Joan Underwood – Quantum

Comment [BCS5]: The text as written inaccurately implies that the entire list of compounds that follow are associated with releases from Rhone Poulenc and/or Arkema. For example, Rhone Poulenc is not the source of SVOCs, PCBs, inorganics among others. Therefore, we have inserted a paragraph break after this sentence so that it is not incorrectly assumed that the list of compounds that follows are necessarily associated with Rhone Poulenc and/or Arkema

Comment [BCS6]: The following list of compounds identified by EPA for riverbank soils in the vicinity of the RM7 railroad bridge includes of all compounds detected above JSCS screening level values (SLVs). EPA has not provided a similar listing of compounds above SLVs in river bank soils for other portions of the river. We have edited the list of compounds to be consistent the final conclusions of the cited reference (AMEC, 2010).

Comment [BCS7]: "Multiple sources" includes potential upriver sources.